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ABSTRACT

The quarterly report for the Children's Television Workshop (CTW) describes the major activities and accomplishments in production and research for the Sesame Street and Electric Company programs. In addition, activities in public affairs, personnel, budget, international broadcasts, CTW products, and community education services, including services to the mentally handicapped and disadvantaged, are described. A research study designed to examine children's comprehension of verbal humor in order to gauge their ability to deal with language as a thing-in-itself is included as Appendix I. Fourteen children in grades one to three were asked to retell and explain riddles based on linguistic ambiguities. Distinct stages in riddle comprehension were found, more related to reading ability than to age. Three factors involved in acquisition of this competence were identified: cognitive development, familiarity with riddles and riddle telling, and attention to the surface properties of language rather than literal interpretation. (DAG)

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Children's Television Workshop

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SESAME STREET RESEARCH

I. Major Activities and Accomplishments

- A. Sesame Street researchers completed a series of position papers which were conceived and written as reference documents to provide background information for discussions in a contemplated Sesame Street curriculum seminar. The papers review the history and rationale of several critical Sesame Street goals and offer some alternative suggestions for future treatments. If, after curriculum discussions, it seems appropriate to do so, these background papers may be translated into more definitive statements of Sesame Street's curriculum plans.

It seems clear that useful and novel curriculum treatments will be generated from this work -- probably far more than the program can implement properly in the current or the upcoming season. It is likely, therefore, that this work will provide payoff in long-term planning, as well as for short-range curriculum planning.

The papers contain background history, topics for discussion and decision, suggestions for future treatment, writers' notebook suggestions, and lists material and personnel resources. The papers are intended for two audiences: for advisors, who will be responsible for planning and giving input of a theoretical and conceptual nature; and for producers and writers, who will ultimately implement the goals on the show.

Position papers have been completed for the following topics:

Curriculum Appointment
Health and Nutrition
Prescience
Pre-reading Goals and Formats
Cultural Diversity
Sesame Street's Commitment to the
Mentally Retarded
Sesame Street Characters
The Role of Women on Sesame Street

- B. On October fifth, advisors, researchers, writers, and producers organized and attended a curriculum development seminar to discuss guidelines and formats for presenting Sesame Street's new health and nutrition goal. Advisors in attendance were Ms. Claudio de Salvo, Board of Education; Ms. Jackie Davis, Extension Associate, Cornell University; Ms. Arlene Harris, Director of Information Services, Dairy Council of Metropolitan New York; Mrs. Carol Schaeffer, Program Director, Dairy Council of Metropolitan New York; Ms. Mae Norris; Ms. Carol Haber, Board of Education.

- C. Researchers, Producers, Writers, and Advisors (Dr. Judith Palfrey, Children's Hospital, Boston Dr. Gerald Lesser, Harvard University, Dr. Chester Pierce, Harvard University and Harvard Medical School) met to discuss specific plans for treating a proposed extended affective plot line on Sesame Street. Producers had planned to use Buffy St. Marie, a sometime cast member with a new baby, to present some possible problems and resolutions concerning the pre-schooler's loss of security when a new baby comes into the family. Staff and advisors discussed the script ideas in detail, and all concerned agreed on some cautions and review procedures to be followed in the development of this delicate subject.
- D. On October 26, researchers met to brief producers and writers on the rationale and focus of some new eighth Sesame Street curriculum goals. The emphasis was on encouraging writers to try the challenge of featuring new goals like nutrition, exercise, vocabulary development, and health practices.
- E. Researchers met with Jocelyn Gunnar, Sesame Street Magazine staff, and Bill Thompson, a consultant on body movement education for adults and children. The discussion focused on integrative and creative ways of presenting exercise and body movement education on Sesame Street.
- F. The research department planned and supervised a curriculum apportionment documentation. Ms. Anne Shapiro, a Hunter College student who served as a research intern trainee for the Fall 1976 semester, helped in the documentation.

This effort involved identification and calculation of on-air time spent teaching each Sesame Street curriculum goal. Calculations were completed for broadcast season 7 and the first half of broadcast season 8. These data are currently being compiled in Table form to provide at-glance comparisons between the first, second, third, fourth, and seventh seasons.

- G. Professor of Sociology Roberta Cohen, of Princeton University, and her students Kim Torrey and Rosemary Garco, are performing an updated version of the Sesame Street character Familiarity Study. This study, which has been performed in past seasons, identifies children's recognition of and preferences for Sesame Street regular and semiregular cast and muppets. The Princeton students are receiving college credit for their learning experience, and the Sesame Street research group will receive valuable data.

- H. At the request of the Production Department, a researcher performed a minisurvey of parents and day-care children to identify celebrity appearances on Sesame Street.
- I. A researcher, working with a research intern, designed and performed formative research testing for two experimental Sesame Street segments. Results and recommendations were reported to producers.
- J. The Research Planning Specialist was briefed on review and analysis procedures for Nielsen data, so that she may monitor Nielsen information in the future, disseminating and interpreting it to various components of the Workshop.
- K. Researchers began script review and revision procedures for the second half of the eighth taping season. Script review procedures involve regular meetings where the writers' work is discussed, curriculum goals are checked, and ways of clarifying educational content are proposed.
- L. The Assistant Director met with Ms. Sandra McLaughlin to discuss Writers' Notebook materials focusing on experimental formats and production techniques for Sesame Street.
- M. The Assistant Director with Ms. Judith Gray, Nutritional Health Advisor for the Horace Mann School in New York City. Suggestions were exchanged for Sesame Street's health practice curriculum.
- N. Mrs. Patricia Hayes O'Donnell, Senior Researcher on the CTW staff, completed a report compiling statistics documenting female/male portrayals on Sesame Street. Her work offers evaluation of the feminine portrayals on Sesame Street.
- O. Dr. Robin Garfinkel of Columbia University completed a report describing the second stage of her project connected with the recent renorming of the Stanford-Binet Intelligence Test carried-out by Professor Robert Thorndike. This renorming study found a relatively large jump in the normative scores for pre-schoolers. Dr. Garfinkel, working as a consultant to the Children's Television Workshop, performed secondary analyses of these data to investigate possible relationships between the items which account for the improved scores and ratings of relevance to the Sesame Street curriculum.
2. No significant problems encountered
3. Significant Events and Findings: Treated under Category #1, above
4. Dissemination Activities

- A. The Associate and Assistant Directors met with Ms. Dana Ardi, Assistant Professor of Special Education at Fordham University, and with Ms. Barbara Kolucki, Special Education Coordinator for the Children's Television Workshop. The meetings were to plan for a joint presentation at the April, 1977 Conference to be held by the Council for Exceptional Children. The Workshop/Ardi presentation will highlight CTW's Play to Grow segments for mentally retarded children and will report on the study performed in 1976 to assess these segments.
- B. A member of the CTW research staff prepared an extensive research bibliography, which compiles references to and publications of formative and summative research for Sesame Street, as well as for other CTW projects.
- C. A researcher attended the National Association of Educational Broadcasters in Chicago.
- D. A CTW researcher met with Dr. Charles Klasek and Dr. Nancy Ouisenberry of Southern Illinois about research functions at CTW.
- E. Two researchers met with Robert La Rose, a graduate student at the Annenberg School of Communications, University of Southern California, a researcher for the Career Awareness Project at Station KCET in Los Angeles.
- F. The Associate Director reported on CTW segments for mentally retarded children before a meeting of the Pinesbridge BOICE s, an association of parents of mentally retarded children.
- G. The Associate Director met with William Petok, a University of Maryland student, to provide advice about a planned doctoral dissertation.
- H. The Associate Director met with Rabbi Symes and other CTW staff to discuss the feasibility of teaching Hebrew by means of television presentations.
- I. The Associate Director met with Harvard student Jessica Kline to provide information for her honors paper concerning the changes in the role of research at the Children's Television Workshop.
- J. The Associate Director met with Moshe Botwinick, a student at the University of Pennsylvania, Annenberg School of Communications.

5. Capital Equipment Expenditure

6. Data Collection: Comprised under Category #1, above.

7. Other Activities

- A. Products Division - Products and/or review were provided for Sesame Street books, toys, and games.

As in the past, continuing review functions were performed for the Sesame Street Magazine, and Dr. Girvin Kirk and staff continued their ongoing formative research for the magazine.

B. International Division

- A researcher attended the CBC Canadian Sesame Street screening in Montreal and offered feedback on films and animations to producers.
- The assistant Director met with Producers of the Dutch Sesame Street. The discussions reviewed a research study conducted in Holland. A sample of Sesame Street programs were reviewed.
- The Assistant Director spoke to a group of foreign broadcasters about formative research and the CTW operational model.
- The Associate Director met with Hella Kellner a German television producer, and with Ellie Kolman, from CBC's Sesame Street North project.

- C. Community Education Services - Sesame Street researchers provided goal review for the CES Scripts Highlights publication.

8. Staff Utilization - Milton Chen was assigned one-third time as a Sesame Street researcher. The remainder of his time will be spent functioning as Executive Assistant to the Vice President for Research.

9. Future Activities Planned

- a. Researchers plan to design a pilot study of pre-schoolers' competence in letter sounds. The study will represent one of several ministudies examining Sesame Street's pre-reading curriculum.
- b. Researchers plan to complete treatment of curriculum appointment data (See section I, Item E).
- c. Plans will advance for a series of Sesame Street curriculum seminars, probably to begin during the first quarter of 1977. (See section I, Item A).

- d. Studio monitoring procedures will begin again in January, as producers begin taping the second half of Sesame Street's eighth broadcast season.
- e. Researchers and producers will meet again during this quarter to review the pieces written for the sibling rivalry plot-line (See section I, Item C).
- f. Planning will begin in the January - February quarter for formative research studies to assess treatments of newer Sesame Street curriculum areas: health practices, sight phrases, affective material, vocabulary development.
- g. The Character Familiarity Study will be completed in the upcoming quarter (see Section I, Item F).
- h. A series of Sesame Street formats will be tested formatively during the upcoming quarter. The following formats will be examined: The use of songs, implementation of plot lines, and examination of certain special effects.

SESAME STREET PRODUCTION

MAJOR ACTIVITIES AND ACCOMPLISHMENTS

Scripts were written for the second half of season eight of Sesame Street. A series of shows were conceived to include Buffy Sainte-Marie, her husband and new born baby. The shows will relate to the problem of sibling rivalry using Big Bird and Buffy's baby. Guest celebrities such as Shirley Verrett and Paul Simon have been scheduled for early '77.

PROBLEMS

New writers are being sought during this period.

OTHER ACTIVITIES

A live Christmas show featuring Big Bird was performed at the White House for Mrs. Betty Ford and the children of embassy officials.

THE ELECTRIC COMPANY RESEARCH

MAJOR ACTIVITIES AND ACCOMPLISHMENTS

All Formative Research on The Electric Company program as well as the coding project of The Electric Company's segments were finalized. Scripts and studio monitoring of the appeal and comprehension of The Electric Company characters and formats for the final season have also been completed.

A study of the effect of explicit segments for the introduction of new curriculum items has also been concluded. Likewise, the preparation and finishing touches prior to publication of a manuscript based on humor research is now being readied.

A full set of The Electric Company Research documents and the planning of a final "History of The Electric Company" continues.

The In-school survey by Research Triangle has been initiated.

SIGNIFICANT EVENTS AND FINDINGS

The "Journal of Child Language" has been accepted for publication, an article on humor comprehension prepared by The Electric Company's Research Division.

An access system for the coding of content items of The Electric Company's program has been developed.

A final report on the Teacher Interaction Project demonstrates that direct teacher participation during viewing can be both workable and effective.

DISSEMINATION ACTIVITIES

The Director of The Electric Company's Research Division has published an article about The Electric Company called, "An Argument for Television" in the current URBAN REVIEW.

A "kit" on information requested by school personnel on The Electric Company program has been prepared for dissemination by the CTW library. Also available is a completed research bibliography on The Electric Company.

DATA COLLECTION: SUMMARY

A Basic Data Analysis of The Electric Company's coding project has been completed during this period. Data appeal of new characters as well as the effectiveness of curriculum-introduced segments is contained.

A Nielson Survey of data collection is also being continued. Data on the Eye-Movement project has been completed.

OTHER ACTIVITIES

Meetings were held between The Electric Company's Research Division and CTW's School and Day Care Division to explore the development of The Electric Company's related products for schools.

Ideas for the development of an improved Teacher's Guide for The Electric Company were explored during this period.

STAFF UTILIZATION

The following personnel were terminated during this quarter.

- R. Sherman (part-time coder)
- L. Gilbert (part-time coder)
- B. Marx (secretary)
- M. Glanz (researcher)

Current staff of The Electric Company are: Barbara Fowles, and Hylde Clarke.

FUTURE ACTIVITIES PLANNED

A final history and analysis of all The Electric Company's Research by H. Clarke and B. Fowles is being prepared.

An exploration of the obstacles to the adaptation of The Electric Company by schools systems will be developed. A survey of school-personnel needs in relation to the utilization of The Electric Company as well as the experimental development of materials related to The Electric Company for classroom use will be undertaken.

A final analysis of data from the Eye-Movement Project is underway, prior to the preparation of articles based on this project as well as the history of The Electric Company.

THE ELECTRIC COMPANY PRODUCTION

MAJOR ACTIVITIES AND ACCOMPLISHMENTS

Studio production for the second half of the last season of new production began on October 18th and continued through November 22nd.

DISSEMINATION ACTIVITIES

Weekly production meetings were held during the taping season.

DATA COLLECTION: SUMMARY

All activity with the exception of editing and the organization and storage of important materials for the Library has been completed.

FUTURE ACTIVITIES PLANNED

Means of in-school utilization of The Electric Company shows are being discussed so the maximum benefit of the show can be felt during the scheduled three years of repeat programming.

Editing continued through March, 1977.

COMMUNITY EDUCATION SERVICES

Major Activities and Accomplishments

The mission of the Community Education Services Division is to reach out and initiate a process leading to the use of Sesame Street and The Electric Company as supplemental resources in formal and informal educational settings e.g., at home viewing. Parents, teachers and others who give care to young children are the targets of this process. In order to reach them CES develops and implements activities with a broad range of child serving organizations and institutions found in most communities. The activities described in this report are selected highlights which focus upon the following types of institutions and organizations: pre school programs; libraries; community agencies and hospitals. The unifying theme which relates and links these diverse organizations, is that they provide a setting in which CES can reach out to people concerned with the development of children.

Pre School Programs

Projects with organizations conducting pre-school programs is a major CES program. The broad goal of these projects is to initiate a process leading to the adoption of CTW productions, as a supplemental resource within the organization's ongoing educational program and training teachers and parents of the preschoolers to engage in reinforcement and follow-up activities, which enhance the educational content of the broadcasts. This section of the report describes CES activities with several new CES projects with pre school programs and services provided to a series of on-going pre-school projects.

New Pre-School Projects

- . A workshop was conducted for teachers associated with the Baton Rouge Childrens Council. The objective of the workshop was to equip teachers with the information and skills necessary to reinforce the educational goals of Sesame Street. As a consequence of the workshop, the teachers requested additional workshops for the parents of the preschoolers. A coordinator was appointed to arrange the schedule for the CES workshops.
- . In Appalachia, Virginia a CES workshop was held for the parents and staff of the newly established Appalachia Day Care Center. The center is funded through local funds and donations from the community. CES conducted a workshop for the teachers and parents of the children and provided the center with Sesame Street materials which can be used to reinforce the goals of the broadcast.
- . CES, in cooperation with the headstart area office in Meridian, Mississippi held a series of workshops. The workshops participants included the headstart staff, leaders of several Girl Scout and Brownie troops and parents and teachers of children in a nearby Naval Air Station Kindergarten. The workshops were designed to equip the participants with ideas about the use of Sesame Street and ways of reinforcing its educational objectives.
- . The Human Resource AKAdemy in Dallas, Texas is a child care center, developed and funded by a Black Sorority - Alpha Kappa

Alpha. The center provides a comprehensive program for 46 preschoolers and is in the process of training parents to work as staff. CES is providing a series of workshops to train the parents hired by paraprofessionals to utilize Sesame Street. CES has also assisted the center by utilizing student interns from the University of Texas, to make house calls in a nearby housing project and discuss the center and its activities with parents of the preschoolers.

. The director of the Medford Day Care Center, in Massachusetts, became aware of the services and materials offered by CES as a result of attending a CES presentation in the local library. Based on this initial contact the director of the day care became interested in incorporating reinforcement activities based on Sesame Street within the curriculum of the center. CES, provided training in the use of the show and related reinforcement materials. Sesame Street and related reinforcement activities have been made part of the day to day program of the center.

Ongoing Pre-School Projects

. In the state of Virginia, a series of visits were made to local on going projects, whose staffs had been trained in the use of Sesame Street and The Electric Company by CES. These visits were designed to help the projects start up at the beginning of their activities. The local ongoing projects can be divided into three categories:

Parent run preschools-these are projects conducted by parents to provide a preschool experience for children living in rural areas.

<u>Location</u>	<u>Number of Children</u>
Big Stone Gap	25
Jonesville	25

Preschool programs for the Handicapped-these are projects set up to serve children with physical and mental handicaps.

<u>Location</u>	<u>Number of Children</u>
Clintwood	12
Haysi	12

Library Viewing Centers-these are projects located in libraries and designed to provide a preschool experience for children living in rural areas. Each project is under the supervision of a librarian who provides direction to parents serving as volunteer staff.

<u>Location</u>	<u>Number of Children</u>
Wise	70
Clintwood	68
Haysi	42
St. Paul	20
Pennington	24
Coeburn	29
Gate City	20

These ongoing projects provide direct services to approximately 350 children. Each project utilizes Sesame Street as part of its regular curriculum.

Libraries

Public libraries are institutions found in a large number of communities across the country. Libraries as part of their community activities provide preschool programs (see 3) and a forum for parent discussions. This setting enables CES to reach parents directly and also

to help in the development of library based pre school programs.

Forum For Parents

- . The Boston Public Library conducted a parent discussion group which meets once a week. The subject matter discussed in these sessions varies and includes education, social, health and consumer issues. CES made a presentation to the group about the goals of Sesame Street and The Electric Company. Techniques for reinforcing the goals through the use of home made flash cards, cut out letters and numbers and flannel boards were demonstrated. In addition to this activity, the Boston Public Library in its 30 branches and 8 book mobiles has copies of the Sesame Street and Electric Company Magazines available for general circulation.
- . Working in conjunction with the Director of Children's Services of the Medford Public Library in Massachusetts, CES conducted a series of workshops for a group of approximately 90 mothers of preschool and elementary school age children. The workshops were conducted over a three day period with 30 parents participating in each session. The CES presentation followed the format of the activity with the Boston Public Library. Also, the Medford Public Library makes Sesame Street and The Electric Company Magazine available for general circulation.

Pre School Programs Library Based

- . CES conducted a workshop for the Concerned Cooperative

Parent Group of Lawrence, New York. The workshop grew out of the parents' need to develop a preschool program for their children. The Peninsular Library of Lawrence set aside a room in the library for the preschool program. The parents donated a television set and agreed to serve as a volunteer staff for 90 preschoolers. The objective of the workshop was to equip the parent volunteers with the information and skills required to use Sesame Street as a supplemental resource.

Community Agencies and Centers

Community agencies and centers are another element in the CES outreach to organizations serving children. They provide a setting in which CES can reach program staffs concerned with the development of children.

Reading Clubs

. CES, made a presentation to the City Arts Collaborative on the development and implementation of The Electric Company project with the Boys' Clubs of Boston (see first quarter report). The Collaborative is composed of representatives of various community agencies, such as Boy Scouts, Girl Scouts, community centers and tutoring programs. Three of the agencies present, the Boys' Club of Somerville, Roxbury Girl Scout Troop and the Cambridge Tutoring Plus Program, indicated their interest in developing an Electric Company Reading Club within their programs. CES will hold a series of planning and development meetings with these agencies to move the project to implementation.

Bilingual Application

- . The Sweetwater Neighborhood Center of Sweetwater, Texas provides child care services for infants to six year old, family planning, manpower placement and health services. The center provides services for a number of bilingual families. Eighty six children participate daily in a full day program and 32 children in a half day session. The center is staffed by a total of 31 people, many of whom are parents from the neighborhood. After determining the educational needs of the population with the day care director and the education director, CES agreed to conduct a series of workshop for the staff with emphasis on the bilingual aspects of Sesame Street. The objective of these workshops is to assist the staff in developing ideas and strategies for using Sesame Street and the bilingual segments presented on the show.
- . CES, in conjunction with Aspira is exploring the development of a reading club project, based on the use of The Electric Company. Aspira, an organization set up to serve Puerto Rican students, offers a network of services to foster aspiration, self confidence and the desire for and ability to attain higher education. A basic unit in this network is the Aspira Club program designed to develop the leadership qualities of the Puerto Rican high school student. The reading club project would utilize the skills of the high school students to develop Electric Company Reading Clubs and serve as tutors to Puerto Rican children in junior high school and

elementary school.

Schools

Schools, primary through the secondary grades provide CES with opportunities to reach parents, teachers, students and children with special needs. The CES thrust in this context is to develop activities leading to the use of Sesame Street and The Electric Company as supplemental resources.

High Schools

. Five high schools in Fort Worth, Texas and the Richardson Independent School District have begun to conduct classes in early childhood education for high school students. Some of the students are parents while others are interested in pursuing a career in the field of early childhood education. Each student receives information about child development in a classroom setting. Three days a week, students work in a child care setting e.g., day care centers, hospitals, to obtain practical experience in working with children. CES, has participated in this program by providing workshops on the use of Sesame Street and The Electric Company as educational resources.

Children With Special Needs

. CES provided assistance to the Perkins School for the Blind in Watertown and The Clark School for the Deaf in North Hampton, Massachusetts, on the use of Sesame Street and The Electric Company. The assistance provided was designed to help the

staffs of the two schools employ CTW productions with their students. In the Clark School for the deaf, a VTR is used and students are shown segments from the show which lend themselves to lip reading as well as learning from the print on the screen. At the Perkins School for the blind, a VTR is also used and students use the audio portion and CTW resources such as Sesame Street Songs, to reinforce the educational goal. In addition to the foregoing schools, CES provided similar services in Manchester, New Hampshire. The center is a school for children with visual, hearing and language handicaps. At the center stress is placed upon having the parents watch the shows with their children and following up with reinforcement techniques taught to them by the centers staff.

Teacher Training

- . CES in Los Angeles, conducted a workshop for 35 school teachers of the Unified School District. This workshop is part of an ongoing series of presentation for elementary school teachers in the Los Angeles system. The objective of these workshops is to equip teachers with the information and skills required to use Sesame Street and The Electric Company as classroom resources.

Bilingual Applications

- . CES met with staff from the Bilingual Resource Center of the New York City Board of Education and program directors from local school districts serving substantial numbers of bilingual students. The purpose of the meeting was to develop a plan

for a series of workshops designed to reach bilingual teachers, related educational personnel and parents. The objective of the workshops will be to convey information about the curriculum goals of Sesame Street and The Electric Company and to demonstrate reinforcement strategies that may be used in the home and classroom.

Colleges

CES activities with college are designed to serve two broad objectives; providing future and current educators and students who upon graduation will work in child serving agencies with the basic knowledge needed for an effective use of CTW productions and the development of projects, utilizing the resources of a college to extend the impact of Sesame Street and The Electric Company.

Bilingual Resources

. CES held a meeting with staff members from the Cultural Awareness Center Trilingual Institute, of the University of New Mexico in Albuquerque. The purpose of the meeting was to review material that could be utilized in the center's program for speakers of English, Spanish and Indian languages. They were loaned the CES films, Teacher To Teacher and Sesame Street Donde Quiera (Sesame Street is Everywhere). They also were given the Sesame Street Activity Manual in Spanish and copies of the Sesame Street Magazine, which is a mix of Spanish and English. These materials will be reviewed for use in their programs. In addition to the materials review, a workshop is planned for the staff and teachers of the center on the use of

Sesame Street and The Electric Company as educational resources.

Early Childhood Students

- . CES in cooperation with the Illinois Migrant Council and Kishwaukee College in Rochelle, Illinois has established a program to train Spanish speaking migrant agricultural workers for careers in the field of early childhood education. This is aimed at providing migrants who have settled out of the migrant stream with the opportunity to pursue a career in early childhood education. Parents participating in the program will attend the college over a two year period and receive stipends of \$85.00 per week. The program consists of three major elements classroom instruction, training in Sesame Street and related activities and hands on experience in day care centers and a special Sesame Street center being established in Rochelle. CES, conducted a 15 hour workshop session for the students who received one unit of credit for participation. Other Sesame Street based academic course work is planned for the spring semester.
- . CES conducted a series of workshops on the use of Sesame Street and The Electric Company as supplementary resources for day and evening elementary education students at Catawaba Valley Technical Institute in Hickory, North Carolina. In addition to the workshops for the students, another workshop was conducted for staff members of local day care centers and teachers in the Catawaba County School System. The workshops were conducted

over a period of two days. The objective of the workshop was to inform the participants about the educational objectives of Sesame Street and demonstrate the use of simple home-made items as material for reinforcing the educational goals of the broadcast. As a consequence of the workshop for the teachers, CES has been invited back to conduct a series of workshops sessions for teachers and related educational personnel in the local school system.

- . At Mississippi State University, CES conducted three workshops for students majoring in Early Childhood Education. The workshop were designed to familiarize the students with Sesame Street and various types of applications. The sessions consisted of a discussion of the goals of Sesame Street, a demonstration of reinforcement techniques and a craft session in which the students developed their own reinforcement material.

Hospitals

During the second quarter CES implemented an exploratory project in selected hospitals providing short and long term care to preschoolers and elementary school age, in the metropolitan area of Boston, Massachusetts. Basic to the development of this project is the belief that CES developed activities can serve as an extension of the hospitals' efforts to counteract boredom and situational anxiety. The project is designed to direct the attention of young patients towards meaningful, time consuming, therapeutic diversion, entertainment and education.

The objectives of the hospital project are to:

- A. Inform hospital administrators, health personnel involved

in pediatric care, volunteers, and others of the curriculum goals of Sesame Street and The Electric Company and the potential uses of the shows as vehicles for meaningful diversion, entertainment and education by young patients

- B. Provide training and related CES material for selected personnel, volunteers and others in reinforcement strategies which can be carried out in a hospital environment
- C. Encourage the parents of the children to engage in reinforcement activities as a means of enhancing the diversionary entertainment and educational effects of the programs.

The criteria used for identifying hospitals which were approached to participate in this project were: size of pediatric unit; income level of patients; location; type of medical care provided; length of patients stay; availability of television and the availability of educational services. Initial contact with the hospitals was made through the Public Relations or Community Relations Department. It was felt that these departments would be better acquainted with hospitals' facilities, staff volunteers and local community resources.

The following hospitals have been contacted to solicit their participation in the project:

- 1. Boston City Hospital - Boston, Massachusetts
Size of pediatric unit - 50 beds
Status - Permission obtained from hospital administration to implement project, staff training sessions scheduled.
- 2. Leonard Morse Hospital - Natick, Massachusetts
Size of pediatric unit - 30 beds plus four private patient parent rooms
Status - Hospital administration reviewing the project.
- 3. Shriners Hospital for Crippled Children - Boston, Massachusetts
Size of pediatric unit - 30 beds
Status - Hospital administration reviewing the project.
- 4. Childrens Hospital - Boston, Massachusetts
Size of pediatric unit - 640 beds
Status - Hospital administration reviewing the project.
- 5. New England Medical Center - Boston, Massachusetts
Size of pediatric unit - 120 beds

Status - Permission obtained from hospital administration to implement project. Limited staff training required, because of the staff's previous experience of using CES materials, within a preschool or elementary school environment. Sesame Street and The Electric Company will be utilized from three to five days a week, with an estimated 58 long terms and 20 short term patients, who must return to the hospital five days out of each month. Contact will be established with the out patient staff to explore the potential for developing a similar project.

Federal Correctional Institution

The developmental pilot project being conducted by CES and the United States Bureau of Prisons, has as its primary goal making a significant contribution to maintaining and strengthening family ties of inmate families elements vital to successful reintegration into the broader community. The project, built around the use of Sesame Street plus the tutoring skills of CES trained inmates and the assistance of community institutions, provides:

- A. A systematic program of educational activities for the children of inmates on visiting days.
- B. An opportunity for the spouse and inmate to communicate in a positive emotional climate without having to worry about the behavior of their children in the visiting room.
- C. An informal educational setting for the parents to jointly contribute to the growth and development of their children.
- D. An opportunity for inmates to be exposed to a training program for child care givers and engage in the exploration of a potential career in the field of child care.

The pilot project developed out of the exploratory CES program at the Federal Correctional Institutions in Fort Worth and Seagoville, Texas and has expanded to four other federal prisons.

- 1. Metropolitan Correctional Center - New York, New York
Status: Project in operation
- 2. Federal Center for Correctional Research - Butner, North Carolina
Status: Project in operation

3. Alderson Federal Correctional Institution - Alderson, West Virginia
Status: Project not yet in operation, potential financial constraint plus isolated location reduces the number of visitors.
4. Lompoc Federal Correction Institution - Lompoc, California
Status: Project in operation.

A 28 minute documentary film on the project "Sesame Street Goes To Prison" has been completed. An indepth report on this project is attached as Appendix I to the quarterly report.

Other Significant Activities

Materials

The CES national office began its annual development and distribution of materials in support of the eighth broadcast season of Sesame Street. The materials are designed for use in formal and informal educational settings, by parents, teachers and others concerned with the development of young children. Over 3,500 groups, organizations and individuals receive CES materials.

This material in many cases is reproduced by the recipient organization and distributed to other child serving groups. In addition to the mailing from the national office, CES regional offices disseminate the material during workshops and other presentations.

The material provides another vehicle for CES to fulfill its mission of reaching out to initiate a process leading to the use of Sesame Street and The Electric Company as supplemental resources in formal and informal educational settings. The following print materials are distributed by CES:

- 1) Sesame Street Script Highlights - A monthly bulletin, mailed in advance of broadcasts, that describes the show segments and their educational goals.

- 2) Special Activities - A monthly bulletin mailed in advance of broadcast, that describes show segments for the mentally retarded and suggested activities for reinforcing their educational content.
- 3) Sesame Street Activities - A manual, available in Spanish and English, linking the educational content of Sesame Street with learning activities that can be conducted before and after the show, thus extending the range and impact of Sesame Street.

The development of a curriculum and utilization guide for The Electric Company was initiated during the second quarter. The guide intended for use by parents, tutors and teachers, will contain information about the curriculum and structure of The Electric Company and recommended goals before, during and after the broadcast. In addition, the manual will contain suggestions for the use of the broadcast as the basis for activities in language skills. The development of the guide will be completed during the third quarter.

Observation Laboratory

CES resumed the operation of its observation laboratory, which is closed during the summer months. The activities developed by CES are tried out with preschoolers in an observation laboratory, operated by the national staff of CES. The laboratory provides a setting in which the effect of the activities can be unobtrusively viewed and assessed. The laboratory, operated under supervision, is staffed by the parents of the children and four college students receiving academic credit for their participation. The parents of the children participate in the running of the laboratory and are trained to conduct reinforcement activities. A by product of this process

is that the parents have involved other parents in learning how to conduct activities which complement Sesame Street.

For the college students, their participation in the laboratory represents a field placement and the opportunity to acquire hands on experience in working with preschoolers. The students involved in the operation of the laboratory, major in fields ranging from film production to education.

<u>College</u>	<u>Location</u>	<u>Major</u>
Medgar Evers College	Brooklyn, N.Y.	Film Production - & - Media Writing
Ramapo College	Mahwah, N.J.	Media and Early Childhood Education
Columbia University	New York, N.Y.	Instructional Media - & - Technology
Earlham College	Richmond, Indiana	Fine Arts

In addition to the use of the laboratory by CES, it is also used by other CTW divisions such as products and research to assess the appeal of selected CTW products.

Dissemination Activities Conferences

CES staff disseminated information about CTW at conferences and exhibits during the second quarter. In parallel with the dissemination of information, contacts were established with groups, agencies and institutions interested in the range of services provided by CES.

National Conference on Career Education - Houston, Texas

Convention of the Arkansas Education Association - Little Rock, Arkansas

The Inner Turmoil: Mississippi's Children in Crisis - Tupelo, Mississippi

Alabama Black Exposition - Birmingham, Alabama

Annual Conference of the North Carolina Association for Young Children - Winston Salem, North Carolina

Bi-Centennial Invitational Convocation in Special Education - Kerhonkson, New York

Arhambee Festival of the Martin Luther King Center - Dallas, Texas

1976 Northeast Area Conference of American Women in Radio and Television - Saratoga Springs, New York

Annual American Foreign Language Conference - New Orleans, Louisiana

Youth Development: Putting Social Science To Work - Boys Town, Nebraska

PUBLIC AFFAIRS

The Electric Company premiered its sixth season in October. Public Affairs completed distribution of a press kit and editorial backgrounder summarizing the history and development of the reading series. A set of photographs illustrating the various curriculum goals and popular characters was distributed to TV editors across the country.

Public Affairs also supported the launching of Sesame Street's eighth season. Materials distributed to the press included stories on the program's location-based shows (camping and seashore), new curriculum goals in the areas of pre-reading skills and health practices, increased emphasis on the role of women, and new developments in the segments for mentally retarded viewers. A press package describing the elements of the new season, and also containing an eight year historical summary of the project with a chart illustrating year-by-year curriculum innovations, was distributed to television and education editors and writers plus public broadcasting stations. Screenings were conducted for the press and interviews arranged with the producers and researchers. One set of interviews with the New York Times led to a nationally disseminated story about parental interaction and involvement with viewing youngsters, one of the important goals of CTW and its Community Education Services Division.

Public Affairs also administered a White House appearance by the Sesame Street cast at the invitation of the First Lady. The event attracted widespread attention across the country. The division worked with ABC-TV on a filmed update of the program's accomplishments that was broadcast on the network in October.

Public Affairs also researched, wrote and distributed descriptive summaries of new outreach programs conducted by the Community Education Services Division. Among the programs launched this season: work with Portuguese-speaking communities and service to migrant workers.

During this period Public Affairs handled about 900 queries by mail and telephone from the general public, and responded to numerous requests for interviews and information by the press, public TV stations and others.

NEW HIRES AND TERMINATIONS FOR SESAME STREET AND THE ELECTRIC COMPANY - INCLUDES PRODUCTION, RESEARCH, PUBLIC AFFAIRS AND COMMUNITY EDUCATION SERVICES FOR THE PERIOD 10/1/76 - 12/31/76.

NEW HIRES

<u>NAME</u>	<u>POSITION</u>	<u>DATE</u>
Davis, Sonia	Secretary - Public Affairs	11/15/76
Guthrie, Paul	Public Affairs Writer	10/4/76
Levco, Nancy	Secretary - Music Production	11/8/76
McCarthy, Danielle	Secretary - Operations	11/1/76

TERMINATIONS

Gilbert, Lucy	Coder - P/T	12/31/76
Glanz, Marcia	Field Res. Coord. - Research	12/31/76
Havanaugh, Sandra	Curriculum Coord. TEC	10/29/76
Levco, Nancy	Secretary - Music Production	12/3/76
Marks, Bernice	Secretary - Research	12/31/76
Miller, Ann	Secretary - Public Affairs	10/29/76
Ritchey, Elizabeth	Studio Producer - TEC	12/17/76
Rout, Pat	Prod. Asst. (Freelance- TEC	11/26/76
Sheiner, Laura	Graphics Coord. TEC	12/3/76
Sherman, Rita	Coder - P/T - TEC	12/31/76
Swinehart, James	Director of Research	10/8/76
Valen, Nanine	P.A./Animation Coord. Film Production	11/26/76

INTERNATIONAL AND OTHER

Foreign countries in which during the quarter ending December 31, 1976, SESAME STREET and THE ELECTRIC COMPANY were broadcast in English and in which SESAME STREET was broadcast in one or more foreign language versions are:

	TEC	SS	Foreign Language
Australia	X*	X	
Barbados	X		
Belgium			X
Bermuda		X	
Brazil			X
Brunei		X	
Canada	X	X	X
Chile			X
Costa Rica			X
Ecuador			X
France			X
Germany	X*	X*	X
Guatemala			X
Haiti		X	
Holland			X
Hong Kong	X	X	
Ireland	X	X	
Japan	X*	X	
Liberia	X	X	
Malaysia	X		
Mexico			X
New Zealand	X	X	
Nicaragua			X
Panama	X*	X*	X
Philippines	X	X	
Portugal	X*		X
St. Kitts		X	
St. Maarten	X	X	
Saudi Arabia	X	X	
Sierra Leone	X		
Singapore		X	
Spain	X*		X
Tanzania		X	
Trinidad & Tobago	X	X	
United Kingdom	X	X	
Zambia	X	X	
Yugoslavia		X	
Korea	X*	X*	
Iceland	X*	X*	
Italy	X*		
Turkey	X*		
Greenland	X*		
Greece	X*		
Taiwan	X*		
Diego Garcia	X*		
Cuba	X*		

COMPETENCE EXPECTANCY AND TALENT IN VERBAL
RIDDLE COMPREHENSION

Barbara R. Fowles*

Marcia Glanz*

Children's Television Workshop

Children's humor production, appreciation and comprehension has become a serious matter for developmental psychologists and educators. Humor has in the past been considered a signal of hostility and aggression in the child, or as an indication of psychosocial development. Recently however, humor has come to be viewed in terms of its structure rather than its subject matter, as a useful naturally occurring index of cognitive growth. (McGhee, 1971a)

The psycholinguistic aspects of humor have, in turn, become a focus of interest. This may be an inevitable elaboration of the study of humor comprehension: As Ginsberg and Koslowski (1976) point out, humor came to be of interest to developmental psychologists in part because "...the apprehension of incongruity, an activity important to the understanding of many humorous situations, has also been receiving increasing attention as a factor in producing cognitive conflict and subsequent cognitive development." (p.42) The source of incongruity in many of the jokes and riddles popular with young children, from about five years old on, is linguistic. Thus to study children's humor comprehension, unless one sticks to visual cartoons (e.g. McGhee 1971b, Zigler et. al, 1967) is to be concerned with language comprehension and manipulation. Several recent studies reflect this concern.

There is another reason to focus on the linguistic aspects of humor, which has heretofore been slighted in studies of children's humor comprehension and appreciation per se. This is the relationship of verbal humor to metalinguistic awareness, which is, in turn, important for reading.

Many educators who concern themselves with the theory and practice of reading instruction (Biber, 1975; Cazden, 1975; Downing, 1970; Gleitman and Rozin, 1973; Mattingly, 1972) have recently noted that the ability to manipulate language as an object is associated with success in learning to read. Helping children to deal with language in this way is therefore desirable. On the other hand, as Cazden, (1976) points out, a didactic approach to the properties of language qua language often has the undesirable effect of making children painfully self-conscious.

Humor is clearly promising then, as a vehicle for investigating the child's metalinguistic functioning without making language a didactic focus. Jokes and riddles can also be used to cultivate metalinguistic insights if appropriate dimensions of language are manipulated.

The purpose of this study was to examine children's comprehension of verbal humor in order to gauge their ability and propensity to deal with language as a thing-in-itself. We examined this in relation to grade and reading performance.

REVIEW OF THE LITERATURE

In the past children's humor has been treated primarily as an index of emotional needs and impulses (McGhee, 1971a). There has recently been a shift to consideration of the cognitive aspects of the humor response. This focus represents the convergence of two theories, both of which have assigned a pivotal role to the identification of incongruities.

Berlyne (1960) is the author of one such theory. Berlyne outlines a sequence where inherently ambiguous stimuli, that is, stimuli which produce conflicting responses, engender curiosity and hence systematic attention to the relevant parts of the stimulus. Directed attention leads to an outcome such as hypothesis formulation, resolution, or learning. Berlyne states explicitly (1960) that works of art and jokes are prime examples of this category of ambiguous stimuli.

Derlyne's theory thus posits a mechanism through which incongruent stimuli, like jokes and riddles, are cognitively productive. Piaget's theory lends this mechanism a developmental dimension.

For Piaget (1968) the primary mechanism for cognitive growth is accommodation, wherein the child's cognitive structures are periodically reorganized to better account for observed reality. Piaget has noted the importance of conflictual and incongruous stimuli in provoking this critical restructuring.

Charlesworth (1969) explains, in accordance with Piagetian theory, just how incongruous stimuli lead to cognitive growth. Charlesworth's discussion deals with surprise in general, rather than the humor response in specific; but the explanation is pertinent. According to Charlesworth, the child is surprised by events which violate his expectations. These expectations are determined by rules or norms abstracted from experience, and thus presuppose relevant cognitive structures. A surprising stimulus is one not in accordance with the child's current internal picture of reality. Such an event must be reinterpreted to fit the rules, or failing that, the rule system must be revised or elaborated in order to incorporate the event. When restructuring (accommodation) of the system does occur, rather than assimilation of the novel stimulus, cognitive growth results.

This entire process is contingent upon the appropriateness of the stimulus. If the child has not yet mastered relevant laws, deviations will go unnoticed. On the other hand, deviations which can be easily accounted for are not arousing, and therefore equally ineffective. Therefore what one finds surprising (or amusing) depends on one's level of cognitive development.

This theoretical base has led to several recent investigations of cognitive aspects of the humor response in children. McGhee (1971b, 1971c, 1972, 1974) has conducted several studies which establish a clear relationship

between humor comprehension and the child's stage of intellectual growth. He has, for example, (1971c) compared cartoons involving logical discrepancies to cartoons involving only perceptual discrepancies. Only children who had achieved the level of concrete operational thinking exhibited comprehension of logically discrepant stimuli. Zigler, et. al. (1967) discovered a similar relationship between cognitive level and humor appreciation. That is, children tended to be most amused by cartoons based on principles just beyond their own current intellectual level.

Brodzinsky (1975) examined several aspects of children's humor development. He found increases across the six-to-ten year old age span in preference for jokes vs. non-jokes, and for conceptually determined vs. visually determined humor. Shultz (1974) also found that six-year-olds exhibited little mastery of the structural bases for riddle appreciation. That is, they were no more bothered by a variation on the joke structure that removed all incongruity (e.g. Call me a cab. Yes Ma'am.) than by a variation that merely rendered the incongruity silly or non-sensical, rather than illogical (e.g. Call a cab for me. You're a cab.) Prentice and Fathman (1975) observed the same phenomenon using riddles as stimuli. The younger children in their sample (grades one through five) did not prefer riddles (What do giraffes have that no other animal has? Baby giraffes.) to non-riddles (What do giraffes have that no other animal has? Long necks.) Enjoyment of non-riddles declined sharply, while preference for true riddles increased. However, even by fifth grade less than 40% of the riddles were comprehended.

Several studies have focused on the linguistic aspects of humor development and have identified parallel connections between language development in general and the development of verbal humor in particular.

McGhee (1971a) reports a study in which Bever categorized verbal jokes, according to a system based on transformational theory, as surface structure

and deep structure jokes; depending on the syntactic description of the humorous ambiguity the five-year-olds laughed more at surface structure jokes, while ten-year-olds preferred deep structure jokes. Bever's study suggests that mastery of the relevant language features is required to appreciate jokes utilizing them.

Shultz and Horibe (1974) elaborated on Bever's study in terms of both the complexity of the categorization system employed, and in the type of response measures used. These authors added lexical and phonological types to the surface vs. deep structure distinction employed by Bever. They tested children 8, 10 and 12 years of age for appreciation and comprehension of jokes, determining the development of sensitivity to the structure of verbal jokes by comparing well-structured jokes to jokes with either their incongruity removed or their resolution removed. They found that up to age nine children were most sensitive to play on the phonological structure, e.g.:

Waiter, what's this?

It's bean soup.

I don't care what it's been, what is it now?

and up to age twelve only to this type and to the lexical type, e.g.:

Order! Order in the court!

Ham and cheese on rye, please.

Deep and surface structure sensitivities did not emerge until twelve years of age. Their data are chronologically discrepant from Bever's but this is most likely because Shultz and Horibe used comprehension, as a criterion, while Bever considered only appreciation, which comes somewhat earlier, and is also less reliable and easier for the child to 'fake'. Also as Zigler, et. al. noted (1967) younger children tend to be the most emotionally expansive, thus giving an impression of pleasure which exceeds their real appreciation of the joke. They are also more likely to try to please the experimenter with a positive response.

The published literature, then, strongly suggests a relationship between language development and comprehension of verbal humor. However,

while some of this research has looked at whether or not children comprehend verbal jokes, or various aspects of their structure, none has approached the course of development through analysis of the types of explanations offered by subjects when presented with such jokes. In examining those explanations, in conjunction with children's retellings of riddles, we sought to determine their level of language awareness in an ecologically valid way.

METHOD

Subjects

Subjects (N=14) were drawn from a public elementary school in a heterogeneous New York City neighborhood. They were black, white, Puerto Rican, West Indian and Chinese; middle class and lower class. Subjects were first (N=6) second (N=4) and third (N=4) graders. Half were at or above expected grade level in reading, and half were identified by their teachers as significantly below expected grade level. However, reading ability was not evenly distributed by grade. The third graders in the sample were more likely to be in the retarded reader group than first or second graders. A small number of children with language problems or hyperkinetic behavior were dropped from the original sample of six children per grade.

Materials

The verbal humor of children in the five-to-nine year old age group consists largely of simple puns, riddles and "knock! knock!" jokes. We studied hundreds of riddles and jokes sent to "The Electric Company Magazine" by children in this age range to insure the appropriateness of our stimuli. The demands of such jokes, in spite of their apparent simple-mindedness, are formidable: The process of "getting" the joke necessitates dealing with linguistic ambiguity, and often a substantial shift in levels (from concrete to abstract; from literal to metaphorical) is required within the framework of a single joke.

Sixteen verbal riddles were chosen, from a variety of sources.

as stimuli for this study. They were of the question-and-answer type in which the question context suggests one interpretation of a given word, phrase or sentence and the answer requires a completely different interpretation. For example, in the riddle:

Q. What has four wheels and flies?

A. A garbage truck.

The structure of the question suggests the interpretation "flies" = "aviates," where the answer requires "flies" = "insects."

An incongruity is created between the expected answer and the actual answer. The listener must then go back, locate the source of this incongruity (the potentially ambiguous "flies") and develop a new rule relating question to answer. The ability to do this successfully depends not only on mastery of all the linguistic components of the riddle, but on the inclination to attend to the workings of language itself as a source of humor. (It is not the garbage truck, even a flying garbage truck, that is humorous, but the language structure itself.)

By asking children to retell and explain riddles of this kind, we sought to learn more about the process of acquiring this complex cognitive skill, a skill which is of additional interest because it is never explicitly taught. Children must therefore infer the relevant social and structural criteria for jokes and joke-telling for themselves, in order to distinguish jokes from non-jokes, to exhibit appropriate joke-telling behavior, and to determine what makes jokes funny. The latter is the most complicated aspect, and probably the last acquired.

The riddles used were selected to conform to linguistic criteria modified from Shultz and Horibe, (1974). The categories of riddles were:

1. Lexical = Humorous ambiguity residing in a single lexical item. e.g.:

Q. What has eighteen legs and catches flies?*

A. A baseball team.

* "Flies" refers to baseballs hit high in the air.

2. Surface structure: Ambiguity lies in alternative bracketings of the words in a sentence, e.g.:
- Q. What happened to the man who fell from a ten story building?
A. Nothing. He was wearing a light fall suit.*
3. Deep structure: Humorous ambiguity lies in alternative deep-structure interpretations of the same surface structure, e.g.:
- Q. What kind of animal can jump higher than a house?
A. Any animal. Houses can't jump.
4. Metalinguistic: The ambiguity stems from a shift in attention from content to structure, e.g.:
- Q. What is at the end of everything?
A. The letter g.

We selected riddles from each linguistic category which would be "easy" or "difficult," on the basis of vocabulary and length. The sixteen riddles were divided into two parallel eight-riddle series (A and B) to make the task tolerable in length. Half the children heard series A and half B.

Procedure

Subjects were tested individually. Each subject was brought to an unoccupied classroom during the school day. The subject was told that we wanted to know if some riddles were funny. We did not explain what a riddle is.

The subject was introduced to the investigator's confederate. The confederate explained the routine and proceeded to tell the child the first riddle in the assigned series, recording the child's general reaction (laughter, scorn, inattention, confusion) and any attempt to guess the riddle's punch line before it was heard (preguessing.) The confederate then asked the subject to walk to the other side of the room and tell the riddle to the investigator. (The child was given one repetition of the riddle if requested.) The investigator recorded the retelling, and asked the child to explain what was funny about the riddle, but no specific questions were planned. Although other investigators

* This is a rather uncommon expression to describe a suit made of lightweight fabric for wear in fall and spring.

(e.g. Shultz & Horibe, (1974) have included questions about specific word meanings and so forth, our interest was to determine what kind of information and strategies the children would bring to bear on the task, not whether the relevant knowledge was available, and could be applied by the child with the investigator's direction.

The child repeated this routine for all eight riddles. No one objected to completing the task, though reactions ranged from amusement to perplexity. After the last riddle the child was dismissed.

SCORING

Criteria

The scoring system for recall and explanation of riddles was based on an analysis of the cognitive and linguistic demands of the riddles. As noted in the introduction, the acquisition of the several facets of this complex performance is taken into account in this scoring system. A response scored 1 represents the upper range of the scale, and a response scored 3, the lower end. Retell and explanation were scored separately, since there was reason to believe that the surface aspects of joking behavior are acquired before the humor is really mastered.

Response levels were characterized as follows:

Recall

Level 1: A verbatim or nearly verbatim response. Any changes the child makes in the riddle are in features which are not relevant to comprehension of the riddle. A highly accurate repetition, adhering to the question and answer format of riddles suggests awareness of the role of the surface properties of language in verbal riddles. Most verbal messages, particularly when they are moderately lengthy, as some of the riddles are, are subject to paraphrase in normal communication. A subject who does not paraphrase, exhibits some awareness of the difference between verbal humor and a conventional communication act. This in

turn indicates some awareness of language itself as the object of attention.

Level 2: A coherent retelling of the riddle which adheres to some or even all of the criteria for normal communication of information, but displays little linguistic awareness. In that the structural properties of the message necessary for the humor are not present in the retelling. The question-answer format of the riddle may be collapsed into a statement which carries essentially the same information or synonyms may be substituted for key words. A response at this level may also omit portions of either question or answer, particularly parts that make a single coherent interpretation of the riddle difficult. Alternatively, words which clarify one of the intended interpretations may be added, with a resultant loss of the ambiguity necessary to the humorous interpretation.

A focus on content, rather than structure is indicated at this level. There is an attempt to convey the riddle as a meaningful message rather than as a linguistic puzzle for its own sake. Objectification of language is absent.

Level 3: A vague, confused retelling of the riddle. There is no evidence of familiarity with the riddle format, and most of the content is lost. Without at least minimal awareness of the joking format there is no framework for organizing the message. Since the messages themselves tend to be relatively bizarre, the task of recalling them with no such framework is difficult, and the results generally disastrous, because the child's rote memory is insufficient.

Explanation

Level 1: An explanation focused on attributes of the language employed in the riddle. Young children generally lack the vocabulary necessary for dealing easily with language-as-object. Nevertheless an appropriate explanation cites key words in the riddle as the source of humor, often in terms of multiple meanings. Funniness is clearly

attributed to the language itself, and the situation to which the language refers is (correctly) deemed irrelevant.

Level 2: An incongruity is identified, it may even be seen to relate to certain words in the riddle, but the source of the incongruity is attributed to the situation to which the language might refer, rather than to the language itself. If the incongruity is seen as funny, the humor is attributed to the unlikeliness of the situation to which it refers. Often there is no humor noted; but the child attempts to construct a situation which resolves the ambiguity that is the essence of a verbal riddle into a single interpretation. The focus is on communicative function of language rather than on its structure.

Level 3: A confused explanation reflecting no awareness of the workings of riddles. The riddle is seen as incomprehensible or nonsensical. A single word or phrase in the riddle may occasion tangential comments.

Procedure

The subject's retelling and subsequent discussion with the investigator and an assistant present during the conversation was taped and then independently scored by assigning each retelling and explanation 1, 2 and 3. There were almost no disagreements between the two scorers. The very few cases of disagreement were rescored through discussion. An average Retell Score (R) and an average Explanation Score (E) was then computed for each child, and across children for each riddle.

RESULTS AND DISCUSSION

Children's responses:

There was not an orderly acquisition of competence with riddles by grade. The second grade group scored better than either first or third. It should be remembered however, that the third grade had more slow readers. A normal population of third graders would almost certainly have surpassed the second graders, who were at all levels of reading

TABLE 1

Average Scores by Grade

Grade	Average Score	
	Retell	Explanation
1st (6-7 years)	1.81	2.38
2nd (7-8 years)	1.15	1.97
3rd (8-9 years)	1.56	2.28

TABLE 2
Average Score of Grade Level*
vs.
Below Grade Level Readers

Reading Level	Retell	Explanation
At Expected Level	1.19	1.95
Below Level	1.88	2.52

* Grade 1 = 6-7 year-olds
Grade 2 = 7-8 year-olds
Grade 3 = 8-9 year-olds

achievement, as were the first graders.

INSERT TABLE 1 ABOUT HERE

With grades collapsed, children characterized as at or above their expected reading level scored higher than children characterized as slow in reading. Thus, facility with riddles seems to be related to reading ability. This is a tentative finding, given the constitution of our sample and the exploratory nature of this research; however, it is a further indication that the relation between all aspects of language play and reading ability is in need of thorough study.

INSERT TABLE 2 ABOUT HERE

Though differences in the difficulty of the riddles themselves affected response level, subjects were consistent in the favored mode of both retelling and explaining. We found children who were clearly functioning at each of the three levels, though very few were at Level 3, even at five years of age.

Ability to recall a riddle, however, was not entirely predictive of ability to explain. A few subjects had a rather wide difference in their scores. An examination of the data reveals no single explanation for this. In Anton's (age 5) case, the retelling of the riddles (which he did well) was an extremely taxing memory task. He visibly struggled to reproduce them accurately. This suggests that he was lacking the grasp of riddle structure that would facilitate recall. This lack of structure explains his inability to analyze the jokes.

The four older children, though their recall was also good, functioned as if they were in a test situation. They took a very rational, even grim, approach to explaining the riddles, and most often produced concrete, literal interpretations. It is difficult to say whether they would have functioned

differently in a context other than the school one.

Level 1: Level 1 subjects gave verbatim accounts and even adhered to the rhythm and stress patterns of the riddle. There were a few cases in which struggle to retell the riddle made clear that an awareness of the importance of precision rather than simple verbal facility, was operating:

(Anton, 1st grade)

"What has four wings and flies?...I mean, what has two wings...four wheels or something...I can't remember. That was sort of a big mouthful...What has four wheels and flies? (I got it!) A garbage truck!"

Note also that Anton's false starts are all in the direction of simplicity and coherence, destroying the essential ambiguity of the riddle. Anton, however, recognized that he had 'lost' the joke and rejected these versions.

Many of the explanations reflected substantial metalinguistic sophistications. For example Luke (3rd grade) volunteered the following explanation of the riddle:

Q. What kind of animal can jump higher than a house?
A. Any animal. Houses can't jump.

"You think it means jump over the house. It really means who jumps higher than a house can."

The focus of the riddle, the ambiguous use of the phrase "higher than a house," has been pinpointed in Luke's explanation. He explains the humor in terms of being tricked by words. Lower level explanations typically attributed the funniness of the riddle to the absurdity of the image of some animal jumping over a house.

Similarly, Dirk (2nd grade) explained the riddle in the following way:

Q. How do you keep fish from smelling?
A. Cut off their noses!

"It means smelling like sniffing instead of smelling like stinking."

This explanation clearly focuses on the word smelling as the source of the joke. Interestingly, Dirk went on to offer his own version

of the joke involving a skunk whose nose was to be held in place of the fish. Dirk recognized that it was the same riddle "...only with a skunk." He had abstracted the riddle's essential structure.

In scoring responses which were focused on the words in the riddle, and thus theoretically at Level 1 (and certainly not at Level 2 or 3) we faced the situation where the child merely repeated the key word to us with great emphasis, clearly understanding that the humor derived from its ambiguity, but at a loss to explain that notion. Gillie (2nd grade) is an example. A discussion with her of the riddle -

- Q. What dog keeps the best time?
- A. A watch dog!

went as follows:

- G. "It's a dog that watches your house."
- I. "But why does it keep the best time?"
- G. "Because it's a watch dog! A watch dog!"
- I. "I don't get it."
- G. "Well I just can't explain it." (with disgust)

In some cases we were forced to simply not score these responses because there was no hard proof that the riddle was understood.

Level 2: Level 2 responses are in some senses the most interesting because of the ingenuity exercised, both in retelling and in explaining, in attempts to construct coherent messages out of essentially nonsensical word games. There were both highly rational and highly fanciful approaches to this problem, but in general these subjects attempted to assign the riddle a single interpretation. In denying the fundamental ambiguity, they also shifted the explanation from a linguistic to a non-linguistic plane. That is, their explanations were in terms of an unusual situation described in the riddle, rather than in terms of an unusual use of words. This form of explanation almost always occurred when the retelling of the riddle was in a collapsed statement form, though not only in those circumstances. It was often the case that a wholly accurate re-

telling of the riddle was followed by a non-joking interpretation. These subjects grasped the format of the riddles and riddle-telling behavior, but were focused on the appropriate attributes.

Peter (2nd grade) represents a good example of the rational (as opposed to fanciful) Level 2 subject. After a completely accurate retelling of the riddle:

Q. What has four wheels and flies?

A. A garbage truck.

Peter explained:

"It flies through the streets getting garbage. It goes very fast."

Another characteristic of the rational response is an explanation of what is funny in the riddle in terms of the unlikeliness of the situation depicted (once having assumed that a single interpretation must be operative.) That is, if the riddle is seen as an essentially rational description, then the humor derives from the necessarily incongruous attributes of the depicted situation. Thus, Peter also gave the following explanation of the "smelly fish" riddle mentioned earlier.

"Because if you cut off their noses, and everything smells with their nose, they can't smell because they have no nose. (It's funny)...because I don't think fish really have noses."

This explanation of the fish riddle contrasts sharply with Dirk's earlier one, in that only one meaning of smelling is cited, a logical interpretation is constructed, and humor is attributed to rule-violations in the situation, rather than in the language.

A more fanciful approach to constructing a single-meaning interpretation is as follows (again in response to the "fish" riddle):

Noel, (1st grade)

"It is funny! Well, fish do have noses, but they don't know how to cut it off. Only people know how to cut stuff off. Some people just cut chicken up and put it in the stove. It could be ready by four minutes, or six minutes. You could get a leg, or..."

At this point we interrupted what was obviously a verbal wild goose chase. Noel was prepared to go to remarkable lengths to construct an explanation, not for the use of the word "smelling," but for the situation in which a fish's nose might be cut off.

At Level 2, then, the child has some awareness of joke formats and joking behavior, but does not yet analyze humor on a linguistic level. The propensity to consider language as a thing-in-itself has not yet emerged. This seems to apply outside the humor context as well. Richardson and Church (1959) asked children at several grade levels to explain proverbs such as "Every cloud has a silver lining." He found that through eight years of age, children characteristically tried to validate the proverb or describe the situation depicted rather than dealing with the metaphor. Similarly, Gardner, et. al. (1975) found that young children preferred literal to metaphoric sentence endings, with the literal endings chosen by 75% of seven year olds.

Level 3: The most inadequate group of responses to these riddles offers little insight into the process of acquiring relevant comprehension skills. In most cases impoverished explanations were associated with poor recall of the riddle. Since the subjects' memory of the riddle was vague or non-existent, it was, of course, difficult to discuss the riddles properties. In most cases where there was accurate recall the subject was able to construct an explanation in terms of at least one aspect of the riddle's meaning. Yet where there was poor recall, this was not necessarily associated with riddle length, suggesting that it is not a simple memory-load problem. Rather there seems to be a lack of familiarity with the riddle format within which to organize the specifics of a given riddle. As was mentioned earlier, the content of verbal riddles is such that ignorance of what to expect probably turns them into memory tasks which are a good deal more difficult than their length, or even their syntactic or lexical complexity would indicate.

The following retellings of the riddle,

Q. What happened to the man who fell from a ten-story building?

A. Nothing. He was wearing a light fall suit,

illustrate the unstructured character of retelling at this level:

Noel (1st grade)

"Why did a man...he was on Empire State Building...and ten stories and..."

Fernando (1st grade)

"Why did a man flow from the tall stories? Because it was nothing."

The following are typically uninformative Level 3 explanations of various riddles:

Noel (1st grade)

"Because...because...I think...no, it couldn't be no...I just don't remember."

Fernando (1st grade)

"She said it!" "She said that's the answer. That's why it's funny!"

Note also that when baffled by the riddles, these subjects would cite authority, i.e. the investigator's confederate who had originally told them the riddle. This reinforced our impression that there was a lack of understanding in these subjects of the whole enterprise of riddle-telling.

Preguesses

In many instances, when first hearing each riddle, subjects volunteered an answer before hearing the punch line. We recorded these "preguesses" and scored them according to a parallel three level system as 1) riddle-appropriate, 2) literal, 3) irrelevant. These preguesses proved to be strong confirmation for the level of explanation the subject tended to give. For example, subjects who responded to the "light-fall suit" riddle with a literal explanation, (e.g. "He landed on the awning.") also gave realistic preguesses such as "He died?" Children who responded to riddles literally were also most likely to offer preguesses, since they

did not understand the precision the answer actually required. On the other hand, subjects whose explanations showed that they were attuned to linguistic properties tended to wait silently for the answer. Most adults do the same, since it is understood that only a specific word or phrase will do, and the chances of hitting upon it, unless one is extraordinarily clever (or has heard the joke before) are small.

Children whose retelling and explanation were poor also gave pre-guesses indicating extreme confusion about the nature of the task. Although they preguessed rather frequently (again exhibiting evidence of misunderstanding of joking behavior), they tended to seize on a single word in the riddle and provide some tangential association of it. Often their responses were totally inexplicable.

Thus, preguesses offer further evidence of three distinct levels of functioning with riddles congruent with the information gleaned during retell and explanation.

Parameters of Riddles

The riddles employed as stimuli were ranked for difficulty in retelling and explaining with scores averaged across all subjects. Table 3 lists riddles and their rankings. In addition Table 3 characterizes each riddle according to the system devised by Shultz and Horibe, (1974) (and modified), and according to a system devised during the course of this study.

INSERT TABLE 3 ABOUT HERE

This requires some explanation: Our findings on the relative difficulty of riddles did not support Shultz and Horibe's syntax-based system. This is not an implausible discrepancy. Our subjects were drawn from a narrow age range; Shultz and Horibe used 1st, 3rd, 5th and 7th graders, and the differences they found among linguistic categories between first

TABLE 3

Riddles Ranked For All Subjects

Riddle	Riddle Type	Riddle Text	Rank Retell	Rank Explanation	Attributes (See text for elaboration)		
A	metaling.	Q. What is at the end of everything? A. The letter g.	1.6	2.5	-novel -big level jump	-abstract meanings -strongly weighted -familiar vocabulary	-short
B.	metaling.	Q. What two letters of the alphabet contain nothing? A. Em - Tee	2.1	2.6	-novel -big level jump	-hard vocabulary (i.e. contain) -neutral structure -abstract meanings -syntactic contrivance	-short
C.	metaling.	Q. Where does Thursday come before Wednesday? A. In the dictionary.	1.7	3.1	-novel -lengthy riddle -big level jump	-strongly weighted -hard vocabulary -abstract meanings	
D.	surface	Q. What room can no one enter? A. A mushroom	1.0	2.4	-generally familiar -simple structure	-familiar vocabulary -neutral structure	-short
E.	lexical	Q. Why didn't the skeleton cross the road? A. It didn't have the guts.	1.8	2.2	-novel -hard vocabulary	-neutral structure -simple structure	-short
F.	lexical	Q. What dog keeps the best time? A. A watch dog.	1.3	1.8	-generally familiar -familiar vocabulary	-simple structure -both meanings concrete	-short
G.	lexical	Q. Why can't your nose be 12 inches long? A. Because then it would be a foot.	1.5	2.0	-novel -both meanings concrete -strongly weighted structure		

TABLE 3 (cont'd)

Riddle	Riddle Type	Riddle Text	Rank Retell	Rank Explanation	Attributes (See text for elaboration)		
H.	deep	Q. What makes people bald-headed. A. Having no hair.	1.3	1.6	-novel -familiar vocabulary	-syntactic contrivance -both meanings concrete -strongly weighted structure	-short
I.	surface	Q. What happened to the man who fell from a 10-story building? A. Nothing. he was wearing his light-fall suit.	1.7	2.7	-novel -hard vocabulary -simple structure	-abstractness of one meaning -big level jump -strongly weighted -lengthy riddle	
J.	surface	Q. Why is the man in the fishmarket stingy? A. He job makes him sell-fish.	2.1	3.0	-hard vocabulary -novel -syntactic contrivance	-big level jump -strongly weighted -lengthy riddle	
K.	lexical	Q. What has 18 legs and catches flies? A. A baseball team.	1.4	2.1	-novel -familiar vocabulary	-both meanings concrete -strongly weighted structure	
L.	lexical	Q. What is black and white and red all over? A. A newspaper.	1.0	1.6	-generally familiar -familiar vocabulary	-simple structure -both meanings concrete -strongly weighted structure	-short
M.	surface	Q. What has 4 wheels and flies? A. A garbage truck.	1.28	2.42	-generally familiar -familiar vocabulary -simple structure	-strongly weighted structure -both meanings concrete -syntactic contrivance	

TABLE 3 (cont'd)

Riddle	Riddle Type	Riddle Text	Rank Retell	Rank Explanation	Attributes (See text for elaboration)	
N.	deep	Q. What is the difference between a running dog and a running man? A. The man wears trousers and the dog pants.	1.5	2.0	-novel -hard vocabulary -syntactic contrivance	-both meanings concrete -big level jump -strongly weighted structure -lengthy riddle
O.	deep	Q. How do you keep fish from smelling? A. Cut off their noses.	1.42	2.14	-novel -syntactic contrivance -familiar vocabulary	-both meanings concrete -neutral structure -lengthy riddle
P.	deep	Q. What animal can jump higher than a house? A. Any animal - A house can't jump!	1.5	2.0	-novel -both meanings concrete -simple structure	-familiar vocabulary -strongly weighted

and third grade were extremely small. Within our restricted developmental range, more subtle criteria seemed to be needed. The riddles were therefore analyzed on a post hoc basis in order to identify the attributes which effectively distinguished easy from difficult riddles for this group. The following attributes emerged as useful discriminators. The first set are those which tended to characterize riddles which were easy for children to retell and/or explain.

1. Familiarity of the riddle Children find it easier to retell riddles they have heard before. (However, exposure does not necessarily improve comprehension. Subjects were not more likely to explain familiar riddles adequately.)

2. Familiar vocabulary Familiar words and patterns of usage were associated with successful retelling and explaining.

3. Simple syntax

4. Brief

5. Concrete or literal meaning The interpretation of riddles depends on multiple meanings. The task of dealing with these multiple meanings was easier when both meanings were concrete or literal.

6. Unweighted "set-up" Riddles vary in the degree to which the question content suggests a given interpretation of a word or phrase whose multiple interpretation is necessary to the riddle. Although all riddles must favor one interpretation to some extent, some set-ups are more ambiguous than others. Since they do not strongly suggest a single interpretation, this makes it easier for the hearer to entertain multiple interpretations.

The second set of attributes appeared in riddles which were more difficult for the children to handle. (For the most part these are parallel to the positive attributes.)

7. Novelty of the riddle

8. Difficult vocabulary

9. Stilted syntax

10. Lengthy

11. Abstract or metaphorical meaning

12. Weighted set-up The question strongly suggests a particular interpretation, making the required shift in interpretation difficult.

13. Large jump in interpretive level The interpretation required for one portion of the riddle is concrete, and the interpretation for the other part is abstract or metaphorical. The large shift in level makes the riddle difficult. It should be noted that the converse of this criterion (similar levels) is not necessarily a positive attribute. Similar levels means either both concrete, or both abstract semantic interpretations. If the latter is the case, it is a negative rather than a positive factor.

All of these factors play a role in recall, but some were not apparently important in assessing the comprehensibility of the riddles. They are:

long/short
familiar/novel
simple syntax/stylized syntax
unweighted set-up/weighted set-up

Factors particularly important to comprehension were:

familiar vocabulary/difficult vocabulary
concrete meaning/abstract/metaphorical meaning
Jump in interpretive level

The reliability and validity of these attributes warrants further systematic testing, using riddles chosen specifically to exemplify these polarities.

DISCUSSION

We found examples of distinct stages in children's riddle comprehension within the five-to-nine year old age range. Stage was not clearly related to age, but appeared to have some relation to reading ability. It seems,

though, that at least three factors are involved in the acquisition of competence with riddles. The first is cognitive development. The essence of riddles is that they require coping simultaneously with two or more meanings. In Piagetian terms, this requires decentration, which is extremely difficult for young children at the preoperational stage. At about seven, or soon after, however, children undergo a shift to concrete logical intelligence which is characterized by the emergence of "operations coordinated among themselves into integrated systems whose most remarkable property, as compared with the intuitive thinking of the young child, is that of being reversible (Piaget, 1968, p. 46)." The child at this stage has the equipment to begin to cope with multiple meaning.

The second factor is familiarity with riddles and riddle-telling behavior in both cognitive and social terms. As Goodnow (1972) points out, most of the intellectual tasks we require of children have both informational and social requirements. These, of course, interact. Adults have decided what is funny (correct) as a punch line for a given riddle. The rules that determine this are implicit. The young child may come to a different (wrong) understanding of what the rules are and offer an answer that isn't "funny." Further, if the child simply lacks experience with riddles and has no grasp of their structure, he will not have a framework for organizing what he hears and will thus have difficulty recalling and processing riddles.

Third, understanding verbal riddles requires attention to the surface properties of language and a shift away from literal interpretation. The possibility of "getting the joke" by considering multiple meanings does not even arise in the case of verbal riddles until attention is shifted to language. We found many subjects who (at least in the context of the task we set them) were obviously at a sufficient cognitive level and familiar with the surface properties of riddles, yet they were unable to

locate the humor in simple verbal riddles because they were not looking at the language. This is what Goodnow (1972) calls an "intellectual knack." That is, it is an inexplicable talent which some of us have and some of us do not. This particular 'talent', however, seems to be an earmark of successful readers and is therefore of more than passing interest.

IMPLICATIONS

Many of the implications of this admittedly exploratory study remain to be defined by further research of a more restricted nature. The first required step is to establish firmly the relationship between facility with verbal humor and reading ability. This must include pre-literate children, and children entering the stage of formal operations. It will be particularly interesting to see whether older children (10-12 years) who are retarded in reading also fail to exhibit competence with verbal humor.

Second, it will be useful to determine whether language facility, a general sense of humor, or both explains the ability to deal with verbal humor. The importance of riddle comprehension as an index of language awareness will be clarified by such a study.

Finally, we need to determine to what degree the social and formal conventions associated with riddles control the kind of response offered by the child, and the kind of expectations placed on the child by the adult. The latter are particularly important, because the child is constantly judged in terms of definitions of a correct performance that are merely conventional rather than truly necessary.

The preceding comments suggest that much remains to be explored in this area. There is, however, some practical knowledge to be gleaned from the present findings, inconclusive though they may be.

First, riddles have emerged as good indicators of the child's

tendency to focus on the surface properties of language. Adequate explanation of a verbal riddle necessitates attention to language as a thing. To turn this about then, we suggest that riddles can be useful vehicles for painless discussion of the syntactic and semantic properties of written language. As several researchers have recently suggested (Biber, 1975; Downing, 1970; Cazden, 1975) encouraging this approach to language, which is at the same time, both playful and analytical, is likely to have favorable repercussions in terms of reading performance.

Similarly, contemplation of riddles can foster flexibility in thinking and categorizing. As we have seen, the essence of verbal humor is ambiguity. Entertaining these ambiguities (as one is motivated to do in order to understand the joke) necessitates flexible thinking about language problems, in specific, and perhaps about all structured problems.

As Ziv (1976) has noted, humorous material can trigger the child's tendency toward divergent thinking (creative responses) which is apparently normally inhibited in the school situation where convergent thinking is strongly favored.

Verbal riddles are a complex, rich example of applied cognition, demonstrating the multiplicity of factors which influence performance in all such complex skills. Because they are enjoyable to children, they also offer educators a great deal of potential material for instruction.

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Footnotes

- * Children's Television Workshop, 1 Lincoln Plaza, New York, N.Y. 10023

FINANCIAL STATUS REPORT		1. FEDERAL AGENCY AND ORGANIZATIONAL ELEMENT Department of Health, Education & Welfare Office of Education		OMB NO. 50-R0100	
3. NAME AND ADDRESS OF GRANTEE ORGANIZATION Children's Television Workshop One Lincoln Plaza New York, New York 10023		4. EMPLOYER IDENTIFICATION NO. 13-2655731		5. GRANTEE ACCOUNT NO. OR IDENTIFYING NO. N/A	
		6. FINAL REPORT ☐ YES ☒ NO		7. BASIS OF REPORT ☐ CASH ☒ ACCRUED EXPENDITURES	
		8. PROJECT PERIOD (Month, Day, Year) Completion of Project FROM 1 1 76 TO		9. REPORT PERIOD (Month, Day, Year) FROM 10 1 76 TO 12 31 76	
10. STATUS OF FUNDS		PROGRAMS - FUNCTIONS - ACTIVITIES			
	(1)	(2)	(3)	(4)	(5)
	Sesame Street	The Electric Co.			TOTAL
a. Total outlays previously reported	\$1,689,000	\$1,939,100			\$3,628,100
b. Total program outlays this period	1,232,700	1,678,600			2,911,300
c. LESS: Program income credits	-	-			-
d. Net program outlays this period	1,232,700	1,678,600			2,911,300
e. Total program outlays to date	\$2,921,700	\$3,617,700			6,539,400
f. LESS: Non-Federal share of program outlays					1,539,400
g. Total Federal share of program outlays					5,000,000
h. Total unpaid obligations					-
i. LESS: Non-Federal share of unpaid obligations					-
j. Federal share of unpaid obligations					-
k. Total Federal share of outlays and unpaid obligations					\$5,000,000
l. Total Federal funds authorized					
m. Unobligated balance of Federal funds					
11. INDIRECT EXPENSE: a. TYPE OF RATE (Mark box)		12. REMARKS (Attach additional sheets if necessary)		13. Certification - I certify that to the best of my knowledge and belief this report is correct and complete and that all outlays and unpaid obligations are for the purpose set forth in the grant award documents.	
☐ PROVISIONAL ☐ FINAL ☐ PREDETERMINED ☐ FIXED N/A				NAME: C.E. Harnett TITLE: Associate Director Finance AREA CODE: 212 NUMBER: 595-3456 EXT.: SIGNATURE OF AUTHORIZED OFFICIAL: <i>C.E. Harnett</i> DATE REPORT IS SUBMITTED: January 24, 1977	
b. RATE	c. BASE				
d. TOTAL AMOUNT	e. FEDERAL SHARE				

HEW-5017 FINANCE - CEH - 1/24/77

CHILDREN'S TELEVISION WORKSHOP
Summary Report on Product Activity
Pursuant to Article 18(a) (ii) As in Effect Amended

In the quarter ending December 31, 1976, the CTW Products Group activities in product areas related to Sesame Street and The Electric Company included the following:

CTW Magazine Publishing

CTW continued to publish its two magazines, SESAME STREET MAGAZINE and THE ELECTRIC COMPANY MAGAZINE. The magazines were sold through subscriptions and, with Select Magazines, Inc. as our distributor, on newsstands. The November-December and Winter Special issues of SESAME STREET MAGAZINE and the November-December-January issues of THE ELECTRIC COMPANY MAGAZINE were published. These magazines have the same target audiences and curriculum goals as their respective shows.

CTW also continued to offer for sale THE ELECTRIC COMPANY GUIDE, an activity book for use by reading teachers in the classroom.

Domestic Licensing (including, for the most part, Canada)

In addition to agreements with Addison-Wesley, Guidance Associates, Milton Bradley and National Textbook for the production of various teaching aids designed exclusively for in-school use, CTW also had licenses in effect with others for educational toys, games, books and records, and ancillary products, as follows:

<u>Licensee</u>	<u>Product</u>
Addison-Wesley	supplementary reading materials for pre-reading and sentence comprehension
Bradley Time	watches, clocks
Burlington Domestic	bed linens, etc.
California Originals	cookie jars

Children's Records of America	records
Colorforms	games
Columbia Records	records
Dem and Marketing	children's plate dishware
Fisher-Price	toys
Friends Industries	crafts
GHC Toy Company	hand puppets, toys
Gorham	figurines, cultry and china
Guidance Associates	filmstrips on reasoning, problem solving, emotions and interpersonal relationships
Ice Follies	live performance, related products
Jardine Matheson Ltd.	radios, phonographs, electronic blackboards
Knickerbocker Toy Co.	stuffed dolls, toys
Marvel Comics	comic book series specially designed for slow readers
Me-Books	books
Milton Bradley	puzzles, games, activity bulletin boards for in-school use exclusively
National Textbook	Spanish language arts program
Owens-Illinois (Lily)	paper cups, plates, etc.
Pak-Well	writing tablets
J.C. Penny	children's clothing
Random House	books
Simon & Schuster	books
Western Publishing	books
Wilton Enterprise	children's kitchen toy sets
Vera	placemats

Foreign Licensing

CTW-licensed products similar to most of those mentioned above were available in one or more of the following areas:

Latin America, including Mexico

Europe, including Spain, Holland, Germany, Sweden, Ireland

Far East, including Japan, Australia, New Zealand

Africa and the Near East.

In addition the Workshop during this quarter had contracts in effect with the Ice Follies and Judd Concert Bureau respectively for certain live ice-skating and symphony orchestra performances featuring SESAME STREET characters.